



# Interagency Aviation Safety Alert



No. IA 09-02

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**Subject:** Transportation of Hazardous Materials – Fuel Containers and Chainsaws

**Area of Concern:** All Aviation Operations

**Distribution:** All Fire and Aviation Personnel

**Background:** There have been reports of personnel transporting fuel containers as well as chainsaws in plastic bags in an attempt to ensure that fuel does not spill.

**Discussion:** Transporting fuel containers and chainsaws in plastic bags does not allow fuel vapors to properly dissipate. Use of plastic bags for transportation of fuel containers and chainsaws is not in accordance with the Interagency Aviation Transportation of Hazardous Materials Guide and the Department of Transportation, Special Permit Authorization DOT-SP 9198.

**Recommendation:** Transport all fuel containers and chainsaws in accordance with the Interagency Aviation Transportation of Hazardous Materials Guide, Chapter 2. This includes ensuring that all containers are free from leaks, clean of oils & fuel and not contained in plastic bags. Chainsaws need to be transported with the fuel fill ports in the “up” position to eliminate the risk of leaking.

The Interagency Aviation Transportation of Hazardous Materials Guide, Chapter 2 states:

**2.2 Control Measures: Non-Bulk.** To transport flammable and combustible liquids in non-bulk containers of 119-gallon capacity or less, the following conditions must be met:

- A. Containers must be specifically designed to carry flammable and combustible liquids and be of sufficient strength to prevent leakage during transportation and handling.
- B. All closures on the containers should be tight and the outside of the container should be free of any residue.
- C. Containers shall be filled to a level that allows for expansion due to temperature or altitude and never filled beyond rated capacity.
- D. Containers must be secured in the upright position by tie-down straps or shipped in an outside container that will keep the inner container upright.
- E. Containers that may release vapors must not be transported in unvented aircraft compartments. Baggage compartments in unpressurized aircraft are considered vented compartments (an unpressurized cabin may also be used when it is ventilated to prevent accumulation of harmful vapors).
- F. Flammable and combustible liquids **shall not be transported in plastic or glass containers** unless they are specifically designed for that purpose.
- G. Additional requirements apply to the following containers:
  - 1. Safety Cans.** Safety cans must be transported in vented compartments, secured in the upright position, and filled to a level that prevents spillage (no more than 90% capacity).
  - 2. Military Jeep Cans (3A1 Jerrycans).** Military Jeep cans must be secured in the upright position and have 2 inch of air space below the container opening.



**3. Drip Torches.** Drip torches (1) must be transported with the igniter nozzle assembly in the tank, air breather valve closed, tank lockring sealed, and fuel spout plug closed and (2) must be secured in the upright position. Leave a minimum of 2 inches of air space below the container opening when filling.

**4. Chainsaw Fuel/Oil Plastic Container (Dolmars).** Chainsaw fuel/oil containers must be transported with the pourer spouts enclosed within the container with the caps sealed. Ensure seal gaskets or o-rings are intact. The fuel air breather cap must be closed during transportation. Secure in an upright position. Leave a minimum of 2 inches of air space below the fuel compartment opening when filling.

**5. Sigg Bottles.** Sigg bottles must not be transported with a pouring spout in lieu of an unvented cap and must have 2 inches of air space below the container opening.

**2.3 Control Measures: Flammable Fuel in Powered Equipment Tanks.** To transport flammable fuel in powered equipment tanks the following conditions must be met:

- A. No more than 20 gallons of flammable fuel in powered equipment tanks may be carried on any load.
- B. Powered equipment is secured in an upright position.
- C. Each fuel tank is filled in a manner that will preclude spillage of fuel during loading and unloading and during transportation.
- D. The compartment in which the equipment is loaded must be ventilated to prevent the accumulation of fuel vapors and must not contain an exposed battery.

The following procedure may be used to remove the requirement to classify powered equipment as hazardous material: **Purging of Flammable Fuel Tanks.** Liquid fuel-powered equipment may also be transported on aircraft when the fuel tanks are purged of fuel. The following is an example of mechanical purging of an engine fuel tank: **1)** Drain fuel tank, **2)** Run engine until it stops, **3)** Attempt restarting with choke on until engine fails to fire, **4)** Remove fuel tank cap and invert engine for 5 minutes, when possible, **5)** Replace cap.

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